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Pattern   (a*|b)x

This 'a' is searched six times, before the pattern is successfully matched

Character string

	0	1	2	3	4	5	6	7
	a	a	a	a	a	a	b	x

	0	1	2	3	4	5	6	7
Anchor 0	m	m	m	m	m	m	f	
Anchor 1		m	m	m	m	m	f	
Anchor 2			m	m	m	m	f	
Anchor 3				m	m	m	f	
Anchor 4					m	m	f	
Anchor 5						m	f	
Anchor 6							m	M

m = matching succeeding

f = matching failed

M = matching successful

Figure 1   Prior Art

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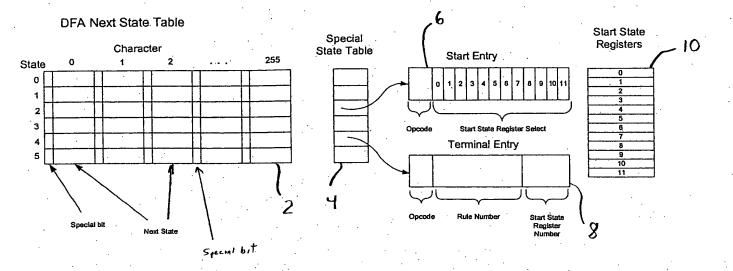Serial No.:   Unassigned
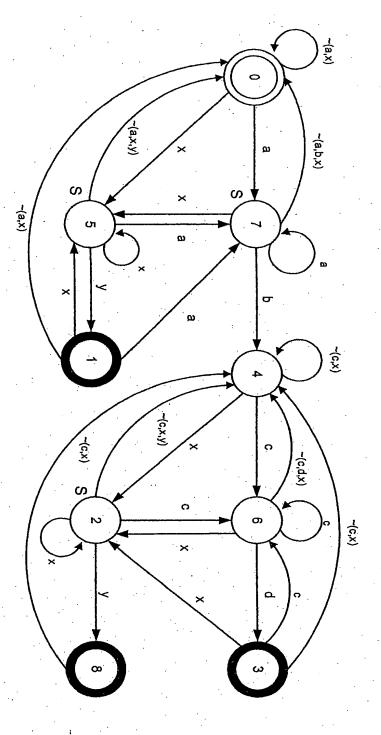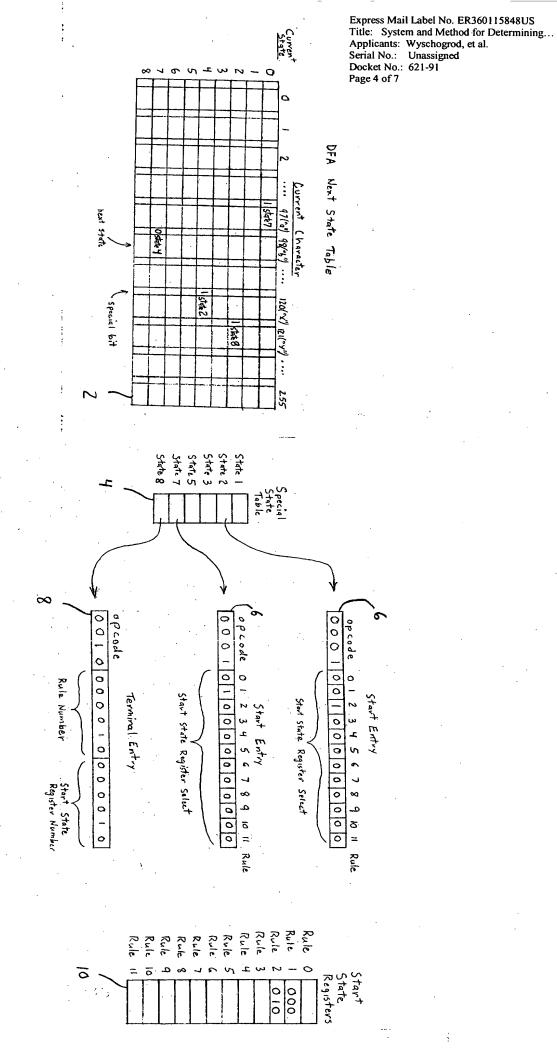Docket No.: 621-91
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DFA Next State Table

Special
State Table

6

**Start State
Registers**

10

State	Character				
	0	1	2	. . .	255
0					
1					
2					
3					
4					
5					

Start Entry

	0	1	2	3	4	5	6	7	8	9	10	11

Opcode   Start State Register Select

Terminal Entry

Opcode   Rule Number   Start State
Register
Number

0
1
2
3
4
5
6
7
8
9
10
11

Special bit
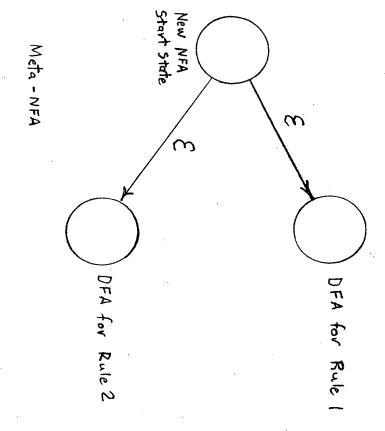
Next State

Special bit

2

4

8

Figure 2

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Figure 3

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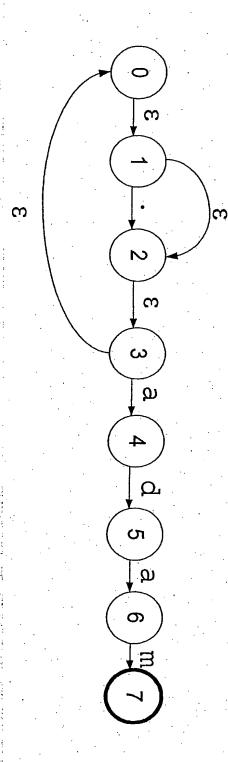Docket No.: 621-91
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Figure 4

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New NFA
Start State

Meta - NFA

ε

ε

DFA for Rule 2

DFA for Rule 1

Figure 5

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Figure 6

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Figure 7